THE NOTIFICATION OF PULMONARY TUBERCULOSIS IN SHOUBRA REGION

THESIS

Submitted in Partial Fulfilment of
M. Sc. Degree

By
TAREK MOHAMED SAFWAT

SUPERVISED BY

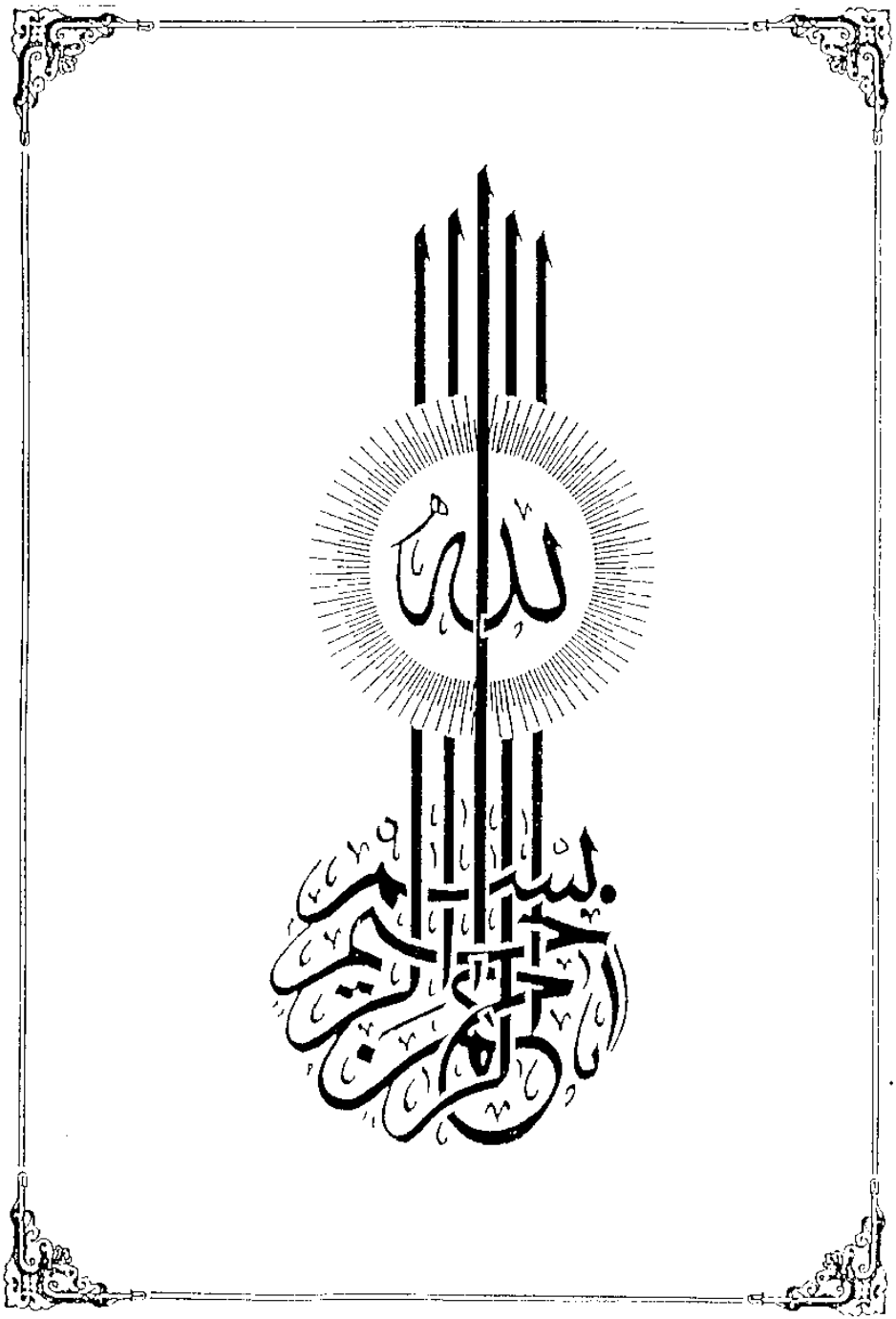
Prof. Dr. Sayed El Warraki
Head and Chairman of Chest Department
Ain Shams University
and
Prof. Dr. Mokhtar Madkour
Prof. of Chest Diseases and Medicine
Ain Shams University

1976

ACKNOWLEDGEMENT

In the completion of this research, I received encouragement and help from many sources, particularly from Professor Sayed El Warraki for his kind supervision and care, to Professor Mokhtar Madkour and Doctor Refky Faress, to both I wish to express may deepest thanks and appreciation for their encouragement and help.

Also I am grateful to all who made this work possible, specially the staff of Shoubra Chest Dispensary for their valuable informations.



C O N T E N T S

	page
Introduction	1
Research Objective...	4
Scope of Study..	5
Materials and Methods	6
Results	8
Discussion.	25
Summary	32
References.	35

INTRODUCTION

Tuberculosis is an infectious disease of man and other animals. In man it is caused by Mycobacterium tuberculosis and infrequently by the closely related bovine strain (M. Bovis).

Hippocrates (460 B.C.), the father of Medicine, called it phthisis, which means "to dry up". The disease was also referred to as (Captain of the Men of Death", and "The Great White Plague". Tuberculosis probably reached its greatest height in Europe during the eighteenth century.

In 1882 Robert Koch discovered the tubercle bacillus which ranks one of the most important discoveries in bacteriology and in the history of medicine. In 1895, Rontgen discovered X-ray which later proved invaluable for the diagnosis of tuberculosis. In 1907, Von Pirquet discoverd the tuberculin test.

Soon after the First World War, the B.C.G. vaccine was evolved by the French scientists, Calmette and Guerin, and was tested in 1921. The success of the B.C.G. vaccine led to larger trials. The real

breakthrough in the battle against tuberculosis was the discovery of streptomycin (1944) Para-Amino Salicylic Acid (P.A.S.) (1946) and isoniazid (1951). These drugs have revolutionized the methods of T.B. control, and have given a hope that TB control would be attainable in a reasonable time (PARK).

Also as regards Rifampicin and Ethambutol (1968) which are new drugs which have greatly improved the cure rate of tuberculosis among those who are resistant to lst liner drugs.

The picture of tuberculosis have changed in many countries and is changing in many others because of the better socioeconomic conditions, the antituberculus treatment and natural selection. The dramatic improvements in the tuberculosis situation have ocurred in the last 25 years. Many achievments have been gained in the battle against tuberculosis. The mortality rate, the morbidity and infection have declined, also with decreasing disability and complications. The gains achieved against tuberculosis are to the extent of meaning 100% arrest of the disease, prevention of relapse and erradication is the target now in many countries.

In Egypt, tuberculosis is still a major public health problem. Thus estimation of the extent of the tuberculosis problem yields valuable epidemiological data necessary for guiding the antituberculosis compaign.

Many indices such as (i.e. the prevelence rate, the incidence rate, the infection rate and the mortality rate) can be used for estimating the disease in the community, different regions and areas and also comparison of the same area in different periods, such information will be of national significance.

RESEARCH OBJECTIVE

Rapid urbanisation and industrialisation is known to be associated with many problems such as overcrowding, bad housing, poor nutrition which have a reflection on the state of health of the community.

Tuberculosis is one of the diseases known to be directly associated with such problems. Thus it was found interesting to study the prevelence of such a disease in a newly urbanised area.

Shubra region a district of Cairo includes three sectors:

- Sahel district a relatively new district.
- Shoubra district an old overcrowded district of cairo with relatively low standard of living with marked overcrowding and bad housing, no parks or gardens.
- and Shoubra El Khema district which is a newly industrialised area with massive migration of population from rural areas.

So it is clear that Shoubra region is an ideal place for study of tuberculosis since it includes newly urbanised and industrialised community that can show clearly the importance of social life on tuberculosis.

SCOPE OF THE STUDY

A new chest dispensary was established in Shoubra in 1967. It was found suitable to extend our study to the period from 1968 till 1974 as in these years almost all data are found available and 7 years study may give an idea about the trend of this disease during a reasonable period.

MATERIALS AND METHODS

The materials of this study are the records of Shoubra dispensary in the years 1968 to 1974.

The dispensary was visited several times and the following data were collected for each year.

1. Number of people examined.
2. Those diagnosed as positive for T.B. either by sputum examination, X-ray examination or by both methods.
3. Distribution of positive cases according to age, sex, and occupation.
4. The distribution of cases according to the extent of severity of the disease.
5. Cases of extrapulmonary tuberculosis.
6. Cases of tuberculosis discovered among contacts.
7. The results of Mass Miniature Radiography (M.M.R.).

The data were tabulated statistically analysed and presented in tables and charts, in order to get a

picture about the disease in Shoubra chest dispensary from 1968 to 1974, a special stress was placed on the difference between 1968 and 1974.., to clarify the changes.

R E S U L T S

Percentage of Disease:

Table I and Figure I shows the percentage of positive patients related to the total examined individuals from 1968 to 1974.

- From the table it is clear that a drop in the percentage of all tuberculus cases i.e. (sputum positive, X-ray +ve and extrapulmonary cases) occurred after 1969 and then a rise occurred at 1974.
- Those who are positive by X-ray only showed a drop in 1970 but a rise in 1971 to drop again in 1972.
- Both who are positive for X-ray and sputum showed a gradual increase at 1971.
- Cases of extrapulmonary tuberculosis showed a gradual slow rise from 1968 to 1974.

Table I: Percentage of Disease

	1968	1969	1970	1971	1972	1973	1974
All tuberculus cases	4.188%	4.105	3.042	3.353	3.091	3.074	4.209
Positive sputum and X-ray	0.407	0.639	0.708	1.100	0.894	0.716	1.084
Positive X-ray only	3.201	2.996	1.335	2.926	1.325	1.390	1.580
Did not examine sputum	-	-	0.546	0.545	0.392	0.402	0.763
Extrapulmonary	0.419	0.470	0.452	0.426	0.480	0.564	0.776
Number of patients examined	16.928	18.291	23.436	19.441	18.112	19.126	14.803

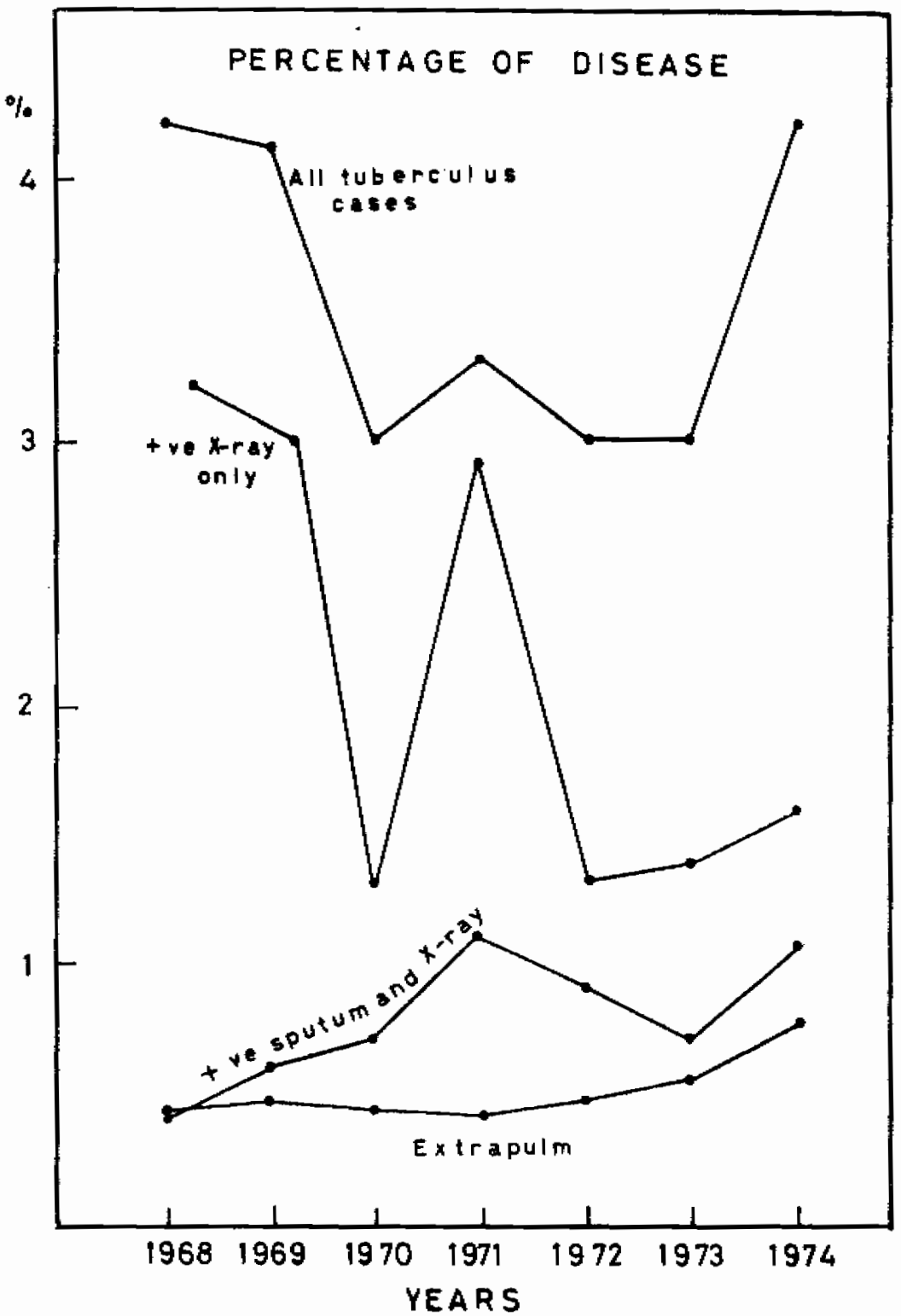


Fig. (1)

Distribution of cases according to Age:

Table II and Figure II show the distribution of cases according to the age. It is clear that the percentage of positive cases is rather similar in all age groups with the exception of the age group below one year and those from 1 to 9 years which showed a drop from 1968 to 1974.